

KISHONO  
Serial No. 10/070,802

Atty Dkt: 1275-49  
Art Unit: 2637

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Cancelled) A Viterbi decoder comprising:

- a branch metric calculating portion for calculating a branch metric value based on a received sequence;
- a bit range converting portion for converting a bit range of the branch metric value calculated by the branch metric calculating portion;
- a path metric calculating portion for calculating a path metric value based on the branch metric values whose bit range has been converted by the bit range converting portion; and
- a decoding portion for decoding received codes based on the path metric value calculated by the path metric calculating portion.

2. (Original) A Viterbi decoder comprising: ~~The Viterbi decoder according to Claim 1,~~

- a branch metric calculating portion for calculating a branch metric value based on a received sequence;
- a bit range converting portion for converting a bit range of the branch metric value calculated by the branch metric calculating portion wherein the bit range converting portion converts the bit range by truncating a least significant bit of the branch metric value calculated by the branch metric calculating portion;
- a path metric calculating portion for calculating a path metric value based on the branch metric value whose bit range has been converted by the bit range converting portion; and
- a decoding portion for decoding received codes based on the path metric value calculated by the path metric calculating portion.

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3. (Currently Amended) A method of Viterbi decoding comprising the steps of:
- calculating a branch metric value based on a received sequence;
  - calculating a path metric value based on the branch metric values; and
  - decoding a received codes based on the path metric value,
- the method being characterized further comprising:
- converting a bit range of the branch metric value by truncating a least significant bit of the branch metric value~~in that a bit range of the branch metric value is converted~~
- and;
- calculating the path metric value is calculated~~based on the branch metric values~~
- whose bit range has been converted.

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